

**IN THE SPECIFICATION:**

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~striketrough~~.

Please REPLACE paragraphs [0025] and [0026] on page 5, with the following paragraphs:

**[0025]** The first input voltage detector outputs a voltage detection signal corresponding to an AC signal, which is 0 to 180 degrees in a phase thereof compared to the commercial AC power. To this end, the first input voltage detector includes a first zener diode ZD1, a first resistance element R1 and a first diode D1 connected in series between the first AC terminal 11 and the second AC terminal 12 forming a current path when a current flows from the first AC terminal 11 to the second AC terminal 12, and a first luminous element PC1-1 and a second resistance element R2 connected in series between the first AC terminal 11 and a node between the first diode D1 and the first resistance element R1. The first luminous element PC1-1 is a part of a first photocoupler ~~PC1~~, with a first phototransistor PC1-2.

**[0026]** The second input voltage detector outputs a voltage detection signal corresponding to the AC signal, which is 180 to 360 degrees in the phase thereof compared to the commercial AC power. To this end, the second input voltage detector includes a second zener diode ZD2, a third resistance element R3 and a second diode D2 connected in series between the first AC terminal 11 and the second AC terminal 12 forming a current path when a current flows from the second AC terminal 12 to the first AC terminal 11, and a second luminous element PC2-1 and a fourth resistance element R4 connected in series between the second AC terminal 12 and a node between the second diode D2 and the third resistance element R3. The second luminous element PC2-1 is a part of a second photocoupler ~~PC2~~, with a second phototransistor PC2-2.

Please REPLACE paragraph [0033] on page 6, with the following paragraph:

**[0033]** The second switching unit 50 includes the first and second phototransistors PC1-2 and PC2-2 connected in parallel between the second AC terminal 12 and a node 51 and between the first and second resistance bodies 31 and 32, respectively, to switch on/off in response to whether the first and second phototransistors PC1-2 and PC2-2 are radiated by the first

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luminous element PC1-1 and the second luminous element PC2-1, respectively. The first photocoupler-~~PC1~~ includes the first luminous element PC1-1 and the first phototransistor PC1-2. The second photocoupler-~~PC2~~ includes the second luminous element PC2-1 and the second phototransistor PC2-2.

Please REPLACE paragraph [0061] on page 9, with the following paragraph:

**[0061]** The construction of the second switching unit 150, which includes an inductor L2 between the second sub-switching unit 155 and first sub-switching unit 153 and the input voltage detector 220, is the same as that of the first switching unit 40, so the detailed description will be omitted herein.